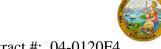
### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

# WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-026505 Address: 333 Burma Road **Date Inspected:** 11-Oct-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

**CWI Name:** Fred Von Hoff **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A Yes **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG Sections** 

## **Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

Orthotropic Bridge Girder (OBG) Sections:

8E-PP70-E5-NE Access Hole: This QA Inspector randomly observed ABF welding personnel Salvador Sandoval (#2202) using the carbon arc process to back gouge the straight sections of this weld joint. The procedure for welding the Access Holes has evolved to whereas the radius ends are back gouged and welded first then the straight sections on each side are then back gouged and welded. This QA Inspector randomly observed QC Inspector Fred Von Hoff perform a visual inspection and Magnetic Particle Testing (MT) on the back gouged section of the weld joint, see photo below. This QA Inspector observed QC Inspector Fred Von Hoff mark several areas where it appeared the carbon deposit from the carbon arcing process had not been removed by grinding; the base metal was not a bright shinny metal. This QA Inspector observed ABF welding personnel Salvador Sandoval (#2202) grinding these areas. This QA Inspector observed as the area was re-inspected, visual and MT, and accepted by QC Inspector Fred Von Hoff. This QA Inspector observed as the area was preheated with a hand held gas torch and verified to be greater than the minimum preheat temperature with an electronic temperature gauge. This QA Inspector randomly observed QC Inspector Fred Von Hoff verified the following welding parameter; 132 amperes. This QA Inspector observed a 3.2 diameter E7018H4R electrode was being used. The work and welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1070 Rev-1.

## WELDING INSPECTION REPORT

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This QA Inspector observed welding was not completed at this location this date.

12W-PP109-W6: This QA Inspector observed ABF welding personnel Todd Jackson (#4639) using the Shielded Metal Arc Welding (SMAW) process to attach drip rail / diverter bar to the OBG section at this location. This QA Inspector observed QC Inspector Salvador Merino monitoring the work at this location. This QA Inspector observed QC Inspector Salvador Merino verify the following welding parameters; 125 amperes. This QA Inspector observed a 3.2 diameter E7018H4R electrode was being used. This QA Inspector was present when QC Inspector Salvador merino performed a visual inspection on the fillet welds and rejected the inboard side due to containing several areas of undercut. QC Inspector Salvador Merino later informed this QA Inspector he re-inspected the area, visually, and accepted the welding. This QA Inspector performed a random visual verification and the welding observed appeared to comply with the contract requirements.

10W-PP92-W4 Lifting Lug Hole # 2 and # 4: This QA Inspector observed ABF welding personnel Mike Jiminez (#4671) using the SMAW process in the overhead (4G) position inside the OBG section. This QA Inspector was informed by QC Inspector Salvador Merino of the following welding parameters; 133 amperes. This QA Inspector observed a 3.2 mm diameter E7018H4R electrode was being used. This QA Inspector observed welding was not completed at this location this date.

This QA Inspector verbally informed QA SPCM Lead Inspector, Daniel Reyes, of the issues noted in this report for compliance therefore for further details of issues of significance see QA SPCM Lead Inspector, Daniel Reyes, Daily Inspection Report (6031) for this date.

#### **Summary of Conversations:**

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted above there were no notable conversations.



#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

# WELDING INSPECTION REPORT

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**Inspected By:** Hager,Craig Quality Assurance Inspector **Reviewed By:** Levell,Bill QA Reviewer